

WHAT IS CLAIMED IS:

1. A method for communicating video data via a data bus between a master device and a slave device which are each coupled to said bus, comprising the steps of:

transmitting from said master device to said data bus a slave address of said slave device and a command;

generating, at said master device, a KEYCMD signal as a function of said command and a master security key;

receiving, at said slave device from said data bus, said slave address and said command and recognizing said slave address as corresponding to said slave device;

generating, at said slave device, an ACK signal as a function of said command and a slave security key;

transmitting from said slave device to said data bus a master address of said master device and said ACK signal;

receiving, at said master device from said data bus, said master address and said ACK signal and recognizing said master address as corresponding to said master device;

comparing said KEYCMD signal generated by said master device with said ACK signal received by said master device; and

executing a data transfer between said master device and said slave device if said KEYCMD signal corresponds to said ACK signal.

2. The method, according to claim 1, further comprising the step of:

inhibiting a data transfer between said master device and said slave device if said KEYCMD signal does not correspond to said ACK signal.

Sub a' → 3. The method, according to claim 2, wherein said step of inhibiting a data transfer comprises:

transmitting said data from said slave device to said data bus; and

preventing said master device from decoding said data from said data bus.

4. The method, according to claim 2, wherein said step of inhibiting a data transfer comprises:

preventing said master device from transmitting said data to said data bus.

5. The method, according to claim 1, wherein said master device is a receiver and said slave device is a peripheral device.

6. The method, according to claim 5, wherein said peripheral device is a display device.

7. The method, according to claim 1, wherein said master device is a peripheral device and said slave device is a receiver.

8. The method, according to claim 1, wherein said master device is a first peripheral device and said slave device is a second peripheral device.

Sub a2 → 9. The method, according to claim 1, wherein said slave device is a decoder.

10. The method, according to claim 1, wherein said step of executing a data transfer comprises:

encrypting said data in said master device according to an encryption key; and

decrypting said data in said slave device according to said encryption key.

11. The method, according to claim 10, wherein said step of executing a data transfer further comprises:

transmitting said slave address and said encryption key from said master device to said data bus; and

receiving said encryption key and said slave address at said slave device from said data bus and recognizing said slave address as corresponding to said slave device.

12. The method, according to claim 10, further comprising the step of:

inhibiting a data transfer between said master device and said slave device if said KEYCMD signal does not correspond to said ACK signal.

13. The method, according to claim 12, wherein said step of inhibiting a data transfer comprises:

preventing said master device from transmitting said data to said data bus.

14. The method, according to claim 10, wherein said master device is a receiver and said slave device is a peripheral device.

15. The method, according to claim 14, wherein said peripheral device is a display device.

16. The method, according to claim 10, wherein said master device is a peripheral device and said slave device is a receiver.

17. The method, according to claim 10, wherein said master device is a first peripheral device and said slave device is a second peripheral device.

Sub a3 → 18. The method, according to claim 10, wherein said ~~slave device is a decoder.~~

19. The method, according to claim 1, wherein said step of executing a data transfer comprises:

encrypting said data in said slave device according to an encryption key; and

decrypting said data in said master device according to said encryption key.

61

20. The method, according to claim 19, wherein said step of executing a data transfer further comprises:

transmitting said master address and said encryption key from said slave device to said data bus; and

receiving said master address and said encryption key from said data bus at said master device and recognizing said master address as corresponding to said master device.

21. The method, according to claim 19, further comprising the step of:

inhibiting a data transfer between said master device and said slave device if said KEYCMD signal does not correspond to said ACK signal.

Sub 24 → 22. The method, according to claim 21, wherein said step of inhibiting a data transfer comprises:

transmitting said data from said slave device to said data bus; and

preventing said master device from decoding said data from said data bus.

23. The method, according to claim 19, wherein said master device is a receiver and said slave device is a peripheral device.

24. The method, according to claim 23, wherein said peripheral device is a display device.

25. The method, according to claim 19, wherein said master device is a peripheral device and said slave device is a receiver.

26. The method, according to claim 19, wherein said master device is a first peripheral device and said slave device is a second peripheral device.

Sub-as
27. The method, according to claim 19, wherein said slave device is a decoder. *Q*

28. A system for communicating video data comprising:
at least one master device having a master address;
at least one slave device having a slave address;
a data bus, coupled to said master device and to said slave device;

said master device including:

means for transmitting to said data bus said slave address and a command,

means for generating a KEYCMD signal as a function of said command and a master security key,

means for receiving from said data bus said master address and an ACK signal,

means for recognizing said master address as corresponding to said master device,

means for comparing said KEYCMD signal and said ACK signal, and

means for receiving said video data from said data bus if said KEYCMD signal corresponds to said ACK signal; and

said slave device including:

means for receiving from said data bus said slave address and said command,

means for recognizing said slave address as corresponding to said slave device,

means for generating said ACK signal as a function of said command and a slave security key, and

means for transmitting to said data bus said master address, said ACK signal, and said video data.

29. The system according to claim 28, wherein said master device further comprises means for inhibiting reception of said video data from said data bus if said KEYCMD signal does not correspond to said ACK signal.

30. The system according to claim 29, wherein said means for inhibiting includes a switch.

31. The system according to claim 28, wherein said master device is a receiver and said slave device is a peripheral device.

32. The system according to claim 28, wherein said master device is a peripheral device and said slave device is a receiver.

64

33. The system according to claim 28, wherein said master device is a first peripheral device and said slave device is a second peripheral device.

Sub a6
~~34. The system according to claim 28, wherein said slave device is a decoder.~~

35. The system according to claim 28, wherein:
said master device further includes means for decrypting said video data according to an encryption key; and
said slave device further includes means for encrypting said video data according to said encryption key.

36. The system according to claim 35, wherein:
said master device further includes means for receiving said encryption key from said data bus; and
said slave device further includes means for transmitting said encryption key to said data bus.

37. A system for communicating video data comprising:
at least one master device having a master address;
at least one slave device having a slave address;
a data bus, coupled to said master device and to said slave device;

said master device including:
means for transmitting to said data bus said slave address and a command,

means for generating a KEYCMD signal as a function of said command and a master security key,

means for receiving from said data bus said master address and an ACK signal,

means for recognizing said master address as corresponding to said master device,

means for comparing said KEYCMD signal and said ACK signal, and

means for transmitting to said data bus said video data if said KEYCMD signal corresponds to said ACK signal; and

said slave device including:

means for receiving from said data bus said slave address, said command and said video data,

means for recognizing said slave address as corresponding to said slave device,

means for generating said ACK signal as a function of said command and a slave security key, and

means for transmitting to said data bus said master address and said ACK signal.

38. The system according to claim 37, wherein said master device further includes means for inhibiting transmission of said video data to said data bus if said KEYCMD signal does not correspond to said ACK signal.

66

39. The system according to claim 37, wherein:
said master device further includes means for
encrypting said video data according to an encryption key; and
said slave device further includes means for decrypting
said video data according to said encryption key.

40. The system according to claim 39, wherein:
said master device further includes means for
transmitting said encryption key to said data bus; and
said slave device further includes means for receiving
said encryption key from said data bus.